

31. (New) The method of claim 29, wherein said polypeptide is the antibody of claim 27.

32. (New) A method of identifying a modulator of a vCOL16A1 polypeptide, said method comprising:

A1  
cont'd

- a) contacting the polypeptide of claim 21 with a test compound; and
- b) determining whether said compound specifically binds to said polypeptide;

wherein a detection that said compound specifically binds to said polypeptide indicates that said compound is a candidate modulator of said vCOL16A1 polypeptide.

33. (New) A method for the production of a composition comprising

- a) identifying a modulator of a vCOL16A1 polypeptide using the method of claim 32; and
- b) combining said modulator with a physiologically acceptable carrier.

---

#### REMARKS

With entry of the present amendment, previously pending claims 1-13 have been cancelled, without prejudice to future prosecution, and new claims 14-33 have been added. Support for the new claims is replete throughout the specification and original claims.

Support for new claims 14-20 can be found, *inter alia*, in the specification at page 213, lines 33-37 and at page 214, lines 1-2. Support for new claims 21-24 can be found in the specification at page 213, lines 33-37 and at page 214, lines 1-2. Support for new claims 25 and 26 can be found in the section titled **Preparation of the polypeptides of the invention** beginning on page 37. Support for new claims 27 and 28 can be found in the section titled **Uses of antibodies** on pages 324-326. Support for new claims 29-31 can be found, e.g. at pages 326-331. Support for new claims 32 and 33 can be found, *inter alia*, at page 340, in the section titled **Modifying Endogenous GENSET Expression and/or Biological Activity**. Applicants respectfully avow that no new matter has been added.

Also included with this Amendment is a Declaration by Applicants' representative indicating that the clone recited in claim 20 has been deposited at the American Tissue Culture Collection (ATCC), 10801 University Boulevard, Manassas, VA 20110-2209, United States

under the terms of the Budapest Treaty, and further indicating that all restrictions imposed by the depositor on the availability to the public of the deposited microorganism will be irrevocably removed upon granting of a patent.

Please charge any additional fees, or credit overpayment to Deposit Account No. 50-1181.

Respectfully submitted,

GENSET CORPORATION

Date: 2 Apr, 2002

By: John Lucas

John Lucas, Ph.D., J.D.

Reg. No. 43,373

***Certificate of Mailing***

Date of Deposit: April 3, 2002

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, on the Date of Deposit shown above, postage prepaid and in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

CM McClure

Signature

CM McClure

*Typed or Printed Name of Person Signing Certificate*

**CLEAN VERSION WITH CHANGES**

**In the claims:**

- 1 14. An isolated vCOL16A1 polynucleotide, said polynucleotide comprising a nucleotide sequence encoding a polypeptide comprising the amino-acid sequence of SEQ ID NO:58 or a biologically active fragment thereof spanning no supplementary amino-acids between the glycine at position 97 and the proline at position 98 of SEQ ID NO:58.
- 1 15. The polynucleotide of claim 14, wherein said vCOL16A1 polynucleotide comprises the nucleotide sequence of SEQ ID NO:57 or a fragment thereof.
- 1 16. An expression vector comprising the polynucleotide of claim 14 operably linked to a promotor.
- 1 17. A composition comprising the polynucleotide of claim 14 and a physiologically acceptable carrier.
- 1 18. A host cell recombinant for the polynucleotide of claim 14.
- 1 19. A non-human transgenic animal recombinant for the polynucleotide of claim 14.
- 1 20. An isolated polynucleotide comprising a nucleotide sequence of an open reading frame of the human cDNA of deposited clone 625004\_188-15-4-0-H6-F, wherein said nucleotide

1 sequence spans no supplementary nucleotides between the thymidine at position 766 and the  
2 cytosine at position 767 of SEQ ID NO:57.

1 21. A vCOL16A1 polypeptide comprising the amino acid sequence of SEQ ID NO:58, or a  
2 biologically active fragment thereof spanning no supplementary amino-acids between the glycine  
3 at position 97 and the proline at position 98 of SEQ ID NO:58.

1 22. The polypeptide of claim 21, wherein said polypeptide is a full length polypeptide shown  
2 at positions 1 to 163 of SEQ ID NO:58.

1 23. A composition comprising the polypeptide of claim 21 and a physiologically acceptable  
2 carrier.

1 24. A polypeptide encoded by the polynucleotide of claim 20.

1 25. A method of making a vCOL16A1 polypeptide, said method comprising:  
2 a) providing a population of cells comprising a polynucleotide encoding the  
3 polypeptide of claim 21, operably linked to a promoter;  
4 b) culturing said population of cells under conditions conducive to the production of  
5 said polypeptide within said cells; and  
6 c) purifying said polypeptide from said population of cells.

1 26. The method of claim 25, wherein said polynucleotide comprises the nucleotide sequence  
2 of SEQ ID NO:57, or a fragment thereof.

1 27. An antibody that specifically binds to the polypeptide of claim 21, wherein the specific  
2 binding of said antibody to said polypeptide depends on the absence of supplementary amino-  
3 acids between the glycine at position 97 and the proline at position 98 of SEQ ID NO:58.

1 28. A method of binding the polypeptide of claim 21 to the antibody of claim 27, comprising  
2 contacting said antibody with said polypeptide under conditions in which said antibody can  
3 specifically bind to said polypeptide.

1 29. A method of determining whether a vCOL16A1 gene is expressed within a mammal, said  
2 method comprising the steps of:

3 a) providing a biological sample from said mammal;

4 b) contacting said biological sample with either of:

5 i) a polynucleotide that hybridizes under stringent conditions to the  
6 polynucleotide of claim 14 and that spans no supplementary nucleotides  
7 between the thymidine at position 766 and the cytosine at position 767 of  
8 SEQ ID NO:57; or

9 ii) a polypeptide that specifically binds to the polypeptide of claim 21; and

10 c) detecting the presence or absence of hybridization between said polynucleotide  
11 and an RNA species within said sample, or the presence or absence of binding of  
12 said polypeptide to a protein within said sample;

13 wherein a detection of said hybridization or of said binding indicates that said vCOL16A1 gene  
14 is expressed within said mammal.

1 30. The method of claim 29, wherein said polynucleotide is a primer, and wherein said  
2 hybridization is detected by detecting the presence of an amplification product comprising the  
3 sequence of said primer.

- 1 31. The method of claim 29, wherein said polypeptide is the antibody of claim 27.
- 1 32. A method of identifying a modulator of a vCOL16A1 polypeptide, said method  
2 comprising:
  - 3 a) contacting the polypeptide of claim 21 with a test compound; and
  - 4 b) determining whether said compound specifically binds to said polypeptide;  
5 wherein a detection that said compound specifically binds to said polypeptide indicates that said  
6 compound is a candidate modulator of said vCOL16A1 polypeptide.
- 1 33. A method for the production of a composition comprising  
2 a) identifying a modulator of a vCOL16A1 polypeptide using the method of claim  
3 32; and  
4 b) combining said modulator with a physiologically acceptable carrier.